

CLAIMS

I claim:

- [c1] 1. A method for distributing electric power to a plurality of electrical devices in a vehicle, the method comprising:
- receiving at least a first operating command for at least one of the plurality of electrical devices;
- in response to receiving the operating command, polling the plurality of electrical devices for power requests;
- receiving at least one power request from the plurality of electrical devices in response to the poll; and
- distributing power to the electrical devices based on the at least one power request received from the plurality of electrical devices.
- [c2] 2. The method of claim 1 wherein receiving the at least one power request includes receiving a power request having a quantitative component and a qualitative component different than the quantitative component.
- [c3] 3. The method of claim 1 wherein receiving the at least one power request includes receiving a power request having a quantitative load component and a qualitative need component different than the load component.
- [c4] 4. The method of claim 1 wherein receiving the at least one power request includes receiving a first power request from a first appliance and a second power request from a second appliance, and wherein distributing power to the plurality of appliances includes distributing power to the first and second appliances based on the relative needs of the first and second appliances.

- [c5] 5. The method of claim 1 wherein the plurality of electrical devices includes at least first and second aircraft galley appliances, wherein receiving the at least one power request includes receiving a first power request from the first galley appliance and a second power request from the second galley appliance, wherein the method further comprises sorting the first and second power requests in descending order of need, and wherein distributing power to the plurality of electrical devices includes distributing power to the first and second galley appliances based on the sorting of the first and second power requests.
- [c6] 6. The method of claim 1, further comprising receiving a preset allocation of electric power for distribution to the plurality of electrical devices, and wherein distributing power to the electrical devices includes distributing a total amount of power that does not exceed the preset allocation.
- [c7] 7. The method of claim 1 wherein receiving at least a first operating command for at least one of the plurality of electrical devices includes receiving an operating command from a user via a display screen operably coupled to the at least one electrical device.
- [c8] 8. The method of claim 1 wherein receiving at least a first operating command for at least one of the plurality of electrical devices includes receiving an operating command from a user via a display screen operably coupled to the at least one electrical device and positioned remote from the at least one electrical device.
- [c9] 9. The method of claim 1 wherein receiving at least a first operating command for at least one of the plurality of electrical devices includes receiving an operating command from a user via at least one touch-key on a display screen operably coupled to the at least one electrical device and positioned remote from the at least one electrical device.

- [c10] 10. The method of claim 1 wherein receiving at least a first operating command for at least one of the plurality of electrical devices includes receiving an operating command from a user via a wireless device.
- [c11] 11. The method of claim 1 wherein receiving at least a first operating command includes receiving first and second operating commands, the first operating command corresponding to a first galley appliance on an aircraft and the second operating command corresponding to a second galley appliance on the aircraft.
- [c12] 12. The method of claim 1 wherein receiving at least a first operating command includes receiving an operating command from a user.
- [c13] 13. The method of claim 1 wherein receiving at least a first operating command includes receiving an automatically generated operating command from a vehicle system.
- [c14] 14. A method for distributing electric power to a plurality of electrical devices on an aircraft, the method comprising:
allocating a preset amount of aircraft electric power for operation of the plurality of electrical devices;
receiving a first power request for operation of a first electrical device of the plurality of electrical devices;
receiving at least a second power request for operation of a second electrical device of the plurality of electrical devices;
comparing the first power request to the second power request; and
distributing electric power to the first and second electrical devices based on the comparison of the first and second power requests, wherein the total amount of electric power distributed to the first and second

electrical devices does not exceed the allocation of aircraft electric power.

[c15] 15. The method of claim 14 wherein receiving a first power request for operation of a first electrical device includes receiving a first power request for performance of a first galley operation, wherein receiving at least a second power request for operation of a second electrical device includes receiving a second power request for performance of a second galley operation, and wherein comparing the first power request to the second power request includes comparing the first galley operation to the second galley operation.

[c16] 16. The method of claim 14 wherein receiving the first power request includes receiving a first request for a first galley appliance to perform a first operation, and wherein receiving the second power request includes receiving a second request for a second galley appliance to perform a second operation.

[c17] 17. The method of claim 14 wherein receiving the first power request includes receiving a first request for a first galley appliance to perform a first operation, wherein receiving the second power request includes receiving a second request for a second galley appliance to perform a second operation, and wherein distributing electric power to the first and second electrical devices includes distributing power to the first and second galley appliances to enable the first galley appliance to perform the first operation and the second galley appliance to perform the second operation.

[c18] 18. A method for operating an electrical device, the method comprising:
receiving an operating command;
generating a request for electric power in response to the operating command, the request having at least a qualitative component

corresponding to a level at which the electric power is needed to comply with the operating command;
transmitting the power request to a controller; and
in response to transmitting the power request to the controller, receiving electric power for at least partially complying with the operating command.

[c19] 19. The method of claim 18 wherein generating a power request for the electrical device includes generating a power request that further includes a quantitative component corresponding to an electric power load.

[c20] 20. The method of claim 18 wherein generating a power request for the electrical device includes generating a power request for an electrical device on an aircraft.

[c21] 21. The method of claim 18 wherein generating a power request for the electrical device includes generating a power request for an electrical appliance in an aircraft galley.

[c22] 22. The method of claim 18 wherein receiving an operating command includes receiving an operating command from a user via a display screen remote from the electrical device.

[c23] 23. The method of claim 18 wherein receiving an operating command includes receiving an operating command from a user via a wireless device.

[c24] 24. The method of claim 18 wherein receiving an operating command includes receiving an automatically generated operating command.

[c25] 25. A computer-implemented method for transmitting operating requests to at least first and second galley appliances on an aircraft, the method comprising:

displaying a list of galley appliances, the list including at least the first galley appliance and the second galley appliance;
receiving a first selection corresponding to the first galley appliance;
in response to the selection, displaying at least first and second control options for the first galley appliance;
receiving a second selection corresponding to at least one of the first and second control options; and
in response to receiving the second selection, transmitting a signal causing the first galley appliance to operate in accordance with the first control option.

[c26] 26. The method of claim 25 wherein receiving a first selection includes receiving a first selection from a user via a display screen positioned remote from the first galley appliance.

[c27] 27. The method of claim 25 wherein receiving a first selection includes receiving a first selection from a user via a wireless device.

[c28] 28. A computer-readable medium including instructions for distributing electric power to a plurality of electrical devices in a vehicle by a method comprising:

receiving an operating command for at least one of the plurality of electrical devices;
in response to receiving the operating command, polling the plurality of electrical devices for power requests;
receiving at least one power request from the plurality of electrical devices in response to the poll; and

distributing power to the electrical devices based on the at least one power request received from the plurality of electrical devices.

[c29] 29. The computer-readable medium of claim 28 wherein receiving an operating command for at least one of the plurality of electrical devices includes receiving an operating command for an electrical appliance on an aircraft.

[c30] 30. The computer-readable medium of claim 28 wherein receiving the at least one power request includes receiving a power request having a quantitative component and a qualitative component different than the quantitative component.

[c31] 31. The computer-readable medium of claim 28 wherein receiving the at least one power request includes receiving a first power request from a first appliance and a second power request from a second appliance, and wherein distributing power to the plurality of appliances includes distributing power to the first and second appliances based on the relative needs of the first and second appliances.

[c32] 32. The computer-readable medium of claim 28 wherein the plurality of electrical devices includes at least first and second aircraft galley appliances, wherein receiving the at least one power request includes receiving a first power request from the first galley appliance and a second power request from the second galley appliance, wherein the method further comprises sorting the first and second power requests in descending order of need, and wherein distributing power to the plurality of electrical devices includes distributing power to the first and second galley appliances based on the sorting of the first and second power requests.

- [c33] 33. A computer-readable medium including instructions for operating an electrical device by a method comprising:
- receiving an operating command;
 - generating a request for electric power in response to the operating command, the request having at least a qualitative component corresponding to a level at which the electric power is needed to comply with the operating command;
 - transmitting the power request to a controller; and
 - in response to transmitting the power request to the controller, receiving electric power for at least partially complying with the operating command.
- [c34] 34. The computer-readable medium of claim 33 wherein generating a power request for the electrical device includes generating a power request that further includes a quantitative component corresponding to an electric power load.
- [c35] 35. The computer-readable medium of claim 33 wherein generating a power request for the electrical device includes generating a power request for an electrical appliance in an aircraft galley.
- [c36] 36. The computer-readable medium of claim 33 wherein receiving an operating command includes receiving an operating command from a user via a display screen positioned remote from the electrical device.
- [c37] 37. A computer-readable medium for generating a display description configured to receive operating instructions for at least one galley appliance in an aircraft, the display description comprising:
- an appliance identifier identifying the at least one galley appliance; and

at least one parameter field configured to receive an operating parameter for the galley appliance.

[c38] 38. The computer-readable medium of claim 37, further comprising at least one touch-key for starting the appliance.

[c39] 39. The computer-readable medium of claim 37 wherein the appliance identifier is a first appliance identifier, and wherein the display description further comprises a second appliance identifier identifying a second galley appliance.

[c40] 40. The computer-readable medium of claim 37 wherein the at least one parameter field is a first parameter field configured to receive a first operating parameter for a first galley appliance, and wherein the display description further comprises a second parameter field configured to receive a second operating parameter for a second galley appliance.

[c41] 41. An aircraft system comprising:
an aircraft power source;
at least first and second galley appliances operably coupled to the aircraft power source and configured to receive electric power from the aircraft power source; and
a controller operably coupled to the first and second galley appliances, wherein the controller is configured to receive a first power request from the first galley appliance and a second power request from the second galley appliance, and wherein the controller is further configured to sort the first and second power requests and distribute power to the first and second galley appliances from the aircraft power source based on the sorting of the first and second power requests.

[c42] 42. The aircraft system of claim 41 wherein the aircraft power source includes a jet engine configured to provide propulsive thrust, and wherein the aircraft system further comprises a fuselage having a passenger cabin, the jet engine providing electric power for pressurization of the passenger cabin in the absence of providing engine bleed air for air conditioning of the passenger cabin.

[c43] 43. The aircraft system of claim 41 wherein the controller includes a processor and a computer-readable medium, wherein the computer-readable medium includes instructions causing the processor to sort the first and second power requests based on relative need.

[c44] 44. The aircraft system of claim 41 wherein the first power request includes a first qualitative component and the second power request includes a second qualitative component, wherein the controller includes a processor and a computer-readable medium, the computer-readable medium including instructions causing the processor to sort the first and second power requests based on a comparison of the first and second qualitative components.

[c45] 45. The aircraft system of claim 41 wherein the first power request includes a first quantitative component and a first qualitative component, wherein the second power request includes a second quantitative component and a second qualitative component, and wherein the controller includes a processor and a computer-readable medium, the computer-readable medium including instructions causing the processor to sort the first and second power requests based on a comparison of the first and second qualitative components.

[c46] 46. The aircraft system of claim 41, further comprising an equipment suite including at least the first and second galley appliances, wherein the aircraft power source provides a preset amount of electric power to the equipment suite, and wherein the controller is further configured to decrease the electric power

provided to at least one of the first and second galley appliances when the power needs of the equipment suite exceed the preset amount of electric power provided by the aircraft power source.

[c47] 47. The aircraft system of claim 41 wherein the first galley appliance includes a first user interface and the second galley appliance includes a second user interface, wherein the first and second user interfaces are operably coupled to the controller and configured to transmit operating commands for the first and second appliances to the controller in response to user inputs.

[c48] 48. The aircraft system of claim 41, further comprising a user interface separate from the first and second galley appliances, wherein the user interface is operably coupled to the controller and configured to transmit operating commands for the first and second appliances to the controller in response to user inputs.

[c49] 49. The aircraft system of claim 41 further comprising a fuselage; wherein the first and second galley appliances are positioned within the fuselage.

[c50] 50. A controller usable with galley appliances on an aircraft, the controller comprising:

a memory configured to store computer-readable instructions; and

a processor configured to execute the computer-readable instructions stored in the memory, the computer-readable instructions causing the processor to distribute electric power to at least first and second galley appliances by a method including:

receiving at least a first operating command for at least one of the plurality of electrical devices;

in response to receiving the operating command, polling the plurality of electrical devices for power requests;

receiving at least one power request from the plurality of electrical devices in response to the poll; and
distributing power to the electrical devices based on the at least one power request received from the plurality of electrical devices.

[c51] 51. The controller of claim 50 wherein receiving the at least one power request includes receiving a power request having a quantitative component and a qualitative component different than the quantitative component.

[c52] 52. The controller of claim 50 wherein receiving the at least one power request includes receiving a first power request from a first appliance and a second power request from a second appliance, and wherein distributing power to the plurality of appliances includes distributing power to the first and second appliances based on the relative needs of the first and second appliances.

[c53] 53. The controller of claim 50 wherein the plurality of electrical devices includes at least first and second aircraft galley appliances, wherein receiving the at least one power request includes receiving a first power request from the first galley appliance and a second power request from the second galley appliance, wherein the method further comprises sorting the first and second power requests in descending order of need, and wherein distributing power to the plurality of electrical devices includes distributing power to the first and second galley appliances based on the sorting of the first and second power requests.

[c54] 54. The controller of claim 50 wherein receiving at least a first operating command for at least one of the plurality of electrical devices includes receiving an operating command from a user via a display screen operably coupled to the at least one electrical device.

[c55] 55. A galley appliance for use in an aircraft, the galley appliance comprising:

a controller interface configured to be operably coupled to an appliance controller positioned remotely from the appliance; and
a processor, wherein the processor is configured to receive operating commands via the appliance controller and transmit power requests to the appliance controller in response to the operating commands.

[c56] 56. An appliance for use in an aircraft, the appliance comprising:
a controller interface configured to be operably coupled to an appliance controller positioned remotely from the appliance; and
a simplified user interface, the simplified user interface including a selector configured to be manipulated by a user when the user desires to operate the appliance, wherein manipulation of the selector by the user causes the appliance to transmit a signal to the appliance controller identifying the appliance to the appliance controller.

[c57] 57. The appliance of claim 56, further comprising a processor, wherein the processor is configured to receive operating commands via the appliance controller and transmit power requests to the appliance controller in response to the operating commands.

[c58] 58. The appliance of claim 56, further comprising a heating element configured to heat food.

[c59] 59. The appliance of claim 56, further comprising at least a first indicator positioned proximate to the selector, wherein activation of the first indicator signifies operation of the appliance in accordance with operating commands received via the appliance controller.

[c60] 60. The appliance of claim 56 wherein manipulation of the selector by the user further causes a display description associated with the appliance to be displayed on a display screen positioned remotely from the appliance.

[c61] 61. The appliance of claim 56 wherein manipulation of the selector by the user further causes a display description associated with the appliance to be displayed on a display screen positioned remotely from the appliance, the display screen being configured to receive operating commands for the appliance.

[c62] 62. A system for distributing electric power to a plurality of electrical devices on an aircraft, the system comprising:
 means for receiving at least a first operating command for at least one of the plurality of electrical devices;
 means for polling the plurality of electrical devices for power requests in response to receiving the operating command;
 means for receiving at least one power request from the plurality of electrical devices in response to the poll; and
 means for distributing power to the electrical devices based on the at least one power request received from the plurality of electrical devices.

[c63] 63. The system of claim 62 wherein the means for receiving the at least one power request includes means for receiving a power request having a quantitative component and a qualitative component different than the quantitative component.

[c64] 64. The system of claim 62 wherein the means the means for receiving the at least one power request includes means for receiving a first power request from a first appliance and a second power request from a second appliance, and wherein the means for distributing power to the plurality of appliances includes

means for distributing power to the first and second appliances based on the relative needs of the first and second appliances.

[c65] 65. The system of claim 62, further comprising means for receiving a preset allocation of electric power for distribution to the plurality of electrical devices, and wherein the means for distributing power to the electrical devices includes means for distributing a total amount of power that does not exceed the preset allocation.

[c66] 66. The system of claim 62 wherein the means for receiving at least a first operating command for at least one of the plurality of electrical devices includes means for receiving an operating command from a user via a display screen operably coupled to the at least one electrical device.

[c67] 67. A system for operating an electrical device on an aircraft, the system comprising:
 means for receiving an operating command;
 means for generating a request for electric power in response to receiving the operating command, the request having at least a qualitative component corresponding to a level at which the electric power is needed to comply with the operating command;
 means for transmitting the power request to a controller; and
 means for receiving electric power for at least partially complying with the operating command in response to transmitting the power request to the controller.

[c68] 68. The system of claim 67 wherein the means for generating a power request for the electrical device includes means for generating a power request that further includes a quantitative component corresponding to an electric power load.

[c69] 69. The system of claim 67 wherein the means for generating a power request for the electrical device includes means for generating a power request for an electrical device on an aircraft.

[c70] 70. The system of claim 67 wherein the means for receiving an operating command includes means for receiving an operating command from a user via a display screen remote from the electrical device.